

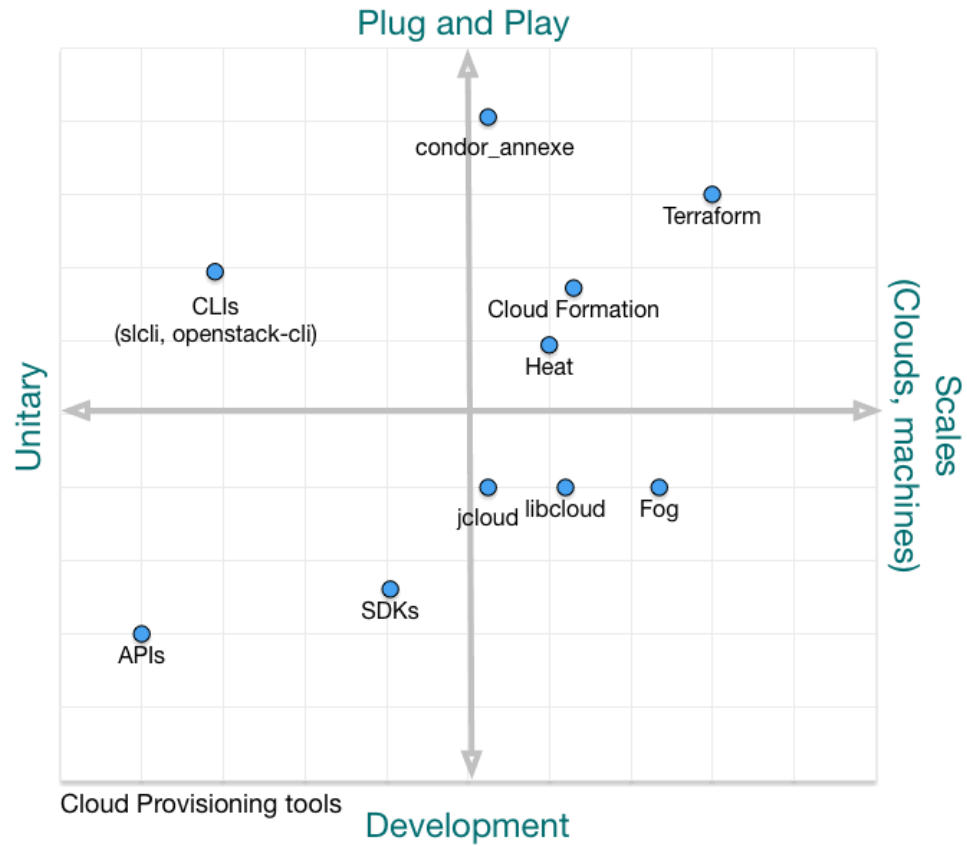


# Future approach to Tier-0 extension

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# Public Cloud for Tier-0

- For the last 5 years we have been using a remote datacentre for tier-0 operations in Wigner
- Can we add public cloud resources to our compute portfolio to extend the cloud?
- Principle is to try to have a common submission point for jobs, and to be as seamless as possible
- Use normal toolkit where possible to provision and manage machines



# Toolkit

- Terraform chosen to provision
  - Multi-cloud support, extensible, supported both pilots
- Cloud-init job to merely get to point puppet could be used
- Separate puppet instance and secure signoff of untrusted certificates
  - Otherwise same as production instance
- Condor routing used to send jobs to cloud
  - Hoped not to rely on CEs but just use routes
  - Ability to specify `+WantExternalCloud` to send to cloud resources

# Conclusions

- Stability of cloud APIs and quality of ecosystem is crucial to avoid long leadtimes
- Some smaller cloud providers differentiating on APIs might be causing themselves problems
- When looking to extend the Tier-0 we're looking to innovate only when we have to externally
  - Easier to change the model using internal cloud
- CEs useful for experiments to be able to monitor cloud activities